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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,022	09/28/2001	Jianwei Liu	INTL-0648-US (P12389)	4651
7590	08/16/2004		EXAMINER	
Timothy N. Trop TROP, PRUNER & HU, P.C. 8554 KATY FWY. STE 100 HOUSTON, TX 77024-1805			MALZAHN, DAVID H	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/966,022	LIU, JIANWEI
	Examiner	Art Unit
	David H. Malzahn	2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 October 2002.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-29 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 September 2001 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/18/02</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Lines 3-6 of claim 1 are mis-descriptive because the carry production control signal is not a function of “an input carry value”, e.g. note Equ. 1 on page 5. Similarly note claims 17 and 26. In claim 5 the phrase “the carry input” lacks clear antecedent basis and to what disclosed structure does the “second circuit” correspond? Similarly note claims 18 and 27. Claim 6 is inconsistent with claim 1 relative to the bits coupled to the carry evaluation circuit and to what disclosed structure does the “carry evaluation circuit” correspond? Similarly note claims 7-9 and 19-21. Claims 10 and 22 are the recitation of function without adequate structural basis. To what disclosed structure do the two elements of claims 13 correspond respectively? Similarly note claim 23. Claims 14 and 24 are mis-descriptive relative to any XOR operation on three bits.

### ***Allowable Subject Matter***

2. Claims 1-29 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

### **Specification/Drawings**

3. Page 14, lines 1-2 call for gates 1201-1209 to be NAND and NOR gates but Fig. 12 shows gates 1201-1209 as AND and OR gates. Page 18, lines 8-10 call for gates 1201-1209 to be AND and OR gates but Fig. 14 shows gates 1301 as NAND and NOR gates. Also in Fig. 14 what is the source of the second input to each of the gates in element 1301? Page 5; heading of Table 2 “ $b_i$ ”, second occurrence, should be “ $b_j$ ”, last line of Table 2 “opr” should be “or” and heading of Table 3 “ $V_1$ ” should be “ $V_i$ ”. Page 6; Equ. 3 “ $V_i$ ”, second occurrence, should be “ $W_i$ ”
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Malzahn whose telephone number is (703) 305-9762. The examiner can normally be reached on M-Th from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David H. Malzahn  
Primary Examiner  
Art Unit 2124